

Application No.: 10/730,525
Response dated August 30, 2005
Reply to Office Action August 18, 2005

REMARKS

Rejections Under 35 USC § 112

3. *Claims 1-3, 6-13 and 15-34, stand Rejected under 35 USC § 112, first paragraph.*

The Applicant traverses this rejection, as one skilled in the art would readily understand that reference to "grams of polyethylene" refer to homopolymers as well as copolymers of ethylene, thus being consistent with the clause in (a). Thus, the catalyst activity is not in fact "recited as being measured using only ethylene without a second alpha olefin as is the bulk density of the polymer produced". (Office Action of August 18, 2005, paragraph 3, page 2). One skilled in the art would readily understand that "PE" includes the product of the combination of "ethylene and at least one comonomer selected from the group consisting of C₄ to C₈ alpha olefins".

Nonetheless, the Applicant herein deletes the portion of Claim 1 referring to the "activity".

The Examiner also objects to the "scope of enablement". The Applicant traverses, as the claims are limited to describe "substituted bis-cyclopentadienyl zirconocene catalyst compound comprising at least one fluoride or fluorine containing leaving group", which embodies the features the Applicant has clearly demonstrated is inventive over the prior art.

4. *Claims 1, 6, 13, 15 and 16 stand Rejected under 35 USC § 112, second paragraph.*

In the above rejection, the Examiner admits that there is no lack of clarity with respect to the "bulk density". One skilled in the art would readily understand this term, and the specification clearly describes this feature.

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The Examiner further objects to the term "Fouling Index". The Applicant traverses this rejection, as the contention that the term "appears to be somewhat subjective" is not well taken. The legal standard for written description under Section 112, second paragraph, is what one skilled in the art would understand. *See* MPEP § 2173.02, 2100-205 (Rev. 2, May 2004). The MPEP states in fact that the examiner "should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire." *Id.*

In light of the amendment to Claim 1, Claim 13 should be allowable.

The Applicant requests that these rejections be withdrawn.

Rejections Under 35 USC § 103 or 35 USC § 102

6. *Claims 1-3, 6-13, and 15-34 stand Rejected under 35 USC § 102 (b) as Anticipated or in the alternative, under 35 USC § 103 (a) as Obvious over US 2002/0032287 (McCullough).*

The Applicant traverses this rejection. Claim 1 is amended such that the claimed ranges of activator and metallocene are correlated with ideal conditions, that is, Fouling Index of less than 2:

the methylaluminoxane being present in the range of from 3 to 9 7.7 mmole methylaluminoxane per gram of support material, the metallocene being present in the range of from ~~0.01~~ 0.04 to ~~1.0~~ 0.1 mmole metallocene per gram of support material

These amendments derive from the specification as filed at paragraph [0048] of the specification and original claim 10, respectively. No new matter is added.

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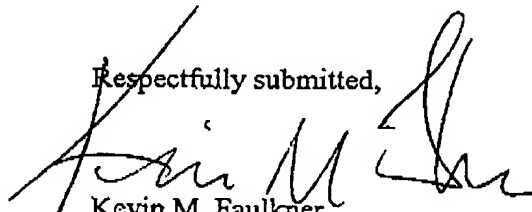
McCullough is directed to a broad class of metallocenes having improved activity. There is no disclosure of the claimed features. To show inherency, the examiner must show that the missing feature is "necessarily present" in the document. MPEP § 2131.01, 2100-74). The Examiner has not done so here. Thus, the Applicant requests that the anticipation rejection be withdrawn.

The Examiner has not shown that there would be any motivation in *McCullough* to modify that reference to arrive at Applicant's invention. MPEP § 2143.01, 2100-129. In particular, there is no mention in *McCullough* of how one would select ranges of metallocene and activator to improve reactor operability. To contend that "such calculations could be easily performed" does not present the required motivation, but merely an invitation to experiment, especially in light of the unpredictable nature of the chemical arts. Further, it should be pointed out that the claimed features are not based merely on "calculations", but findings of inventive features not previously known in the art. The Examiner has thus not made a *prima facie* case of obviousness, and the Applicant requests that this rejection also be withdrawn.

The Applicant invites the Examiner to telephone the undersigned attorney if there are any other issues outstanding which have not been presented to the Examiner's satisfaction.

August 30, 2005
Date

Respectfully submitted,



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